

# Series AJ

## Clamp Cylinder/Double Acting

Bore Size(mm) : Ø50, Ø63



PAT

- TWO TYPES OF CLEVIS WIDTH ARE AVAILABLE(16.5mm, 19.5mm)
- THE PIPING ENTRY ORIENTATION CAN BE SELECTED
- EVEN MORE COMPACT AND LIGHT WEIGHT
- NON LUBE TYPE
- POSSIBLE TO DISASSEMBLE
- BUILT-IN SPEED CONTROLLER

Symbol



### How to Order



**1** Clamp Cylinder

**2** Magnet

Blank : None  
G : Built-in Magnet

**3** Clevis Width

A : 16.5 <sup>+3.0</sup>/<sub>-0.3</sub>mm  
B : 19.5mm

**4** Bore Size(mm)-Stroke(mm)

50 : φ 50 : 50, 75, 100, 125, 150  
63 : φ 63 : 50, 75, 100, 125, 150

**5** Accessories

Blank : None  
Y : Double knuckle joint

**6** Mount

B : Limit switch mount  
N : Length of Rod end is different  
D : Cam mount  
19 : Foot mount

**7** Auto Switch

Blank : None  
Solid State Switch  
W2 : 24VDC, For welding machine, intense magnetic field(except φ 80)  
Reed Switch  
W3 : 24VDC, 100 · 200VAC  
W2PZ : 5m Magnetic auto switch (DC24V Only)  
\*Refer to auto switch specification

**8** Number of Auto Switches

Blank : 2 pcs  
S : 1 pc  
N : N pcs

ACP

APM

AS

AX

AM2

AM

AL  
ALX

AQ  
ADQ

AQ2  
ADQ2

AJ  
AJM

ABK

ACK1

NSK

AG

NGQ

AGX  
GX

NP

ADR

AMR

NDM

ARD

NST

AST

ASTH

NLCD

NLCS

## Series AJ

### Specifications

Clevis width	16.5mm	Series AJA
	19.5mm	Series AJB
Fluid	Air	
Proof pressure	1.5MPa(213psi)	
Max. operating pressure	1.0Mpa(140psi)	
Min. operating pressure	0.05Mpa(7psi)	
Ambient and fluid temperature. °C(°F)	5~60°C(41°F~140°F)	
Piston velocity	50~500 mm/sec	
Cushion	Air-cushion (Both side)	
Lubrication	Non-lube	
Screw tolerance	KS 2 class	
Stroke length tolerance	$\begin{matrix} +0.1 \\ 0 \end{matrix}$	
Speed controller	Built in (Standard)	
Mounting style	Double clevis (Basic type only)	

### Accessories (Option)

Description	Series AJA	Series AJB
Double knuckle joint (With pin and split pin)	TCKA40-18-206A	TCKB40-18-207A
Limit switch mount	TCKAM040-48-16070A	
Cam	TCKAM040-42-16070	

※  $\phi$ 32: Double Knuckle Joint - AC1K032-18-1887  
Clevis Pin - AC1K032-23-1887

### Weight table(The basic weight is for 0 stroke.)

(kgf)

Bore Size		$\phi$ 50	$\phi$ 63
Cylinder	Basic weight	0.96	1.23
	Additional weight per 50 stroke	0.11	0.13
Double knuckle joint (With pin)		0.28	
Limit switch mount		0.22	
Cam		0.12	
Special bracket		2.2	

### Calculation Method

Example : AJ $\phi$ 50-04Y

- Basic weight ... 0.96( $\phi$  50)
- Additional weight ... 0.01/25g stroke
- Cylinder stroke ... 100mm stroke
- Double knuckle joint ... 0.28(r)

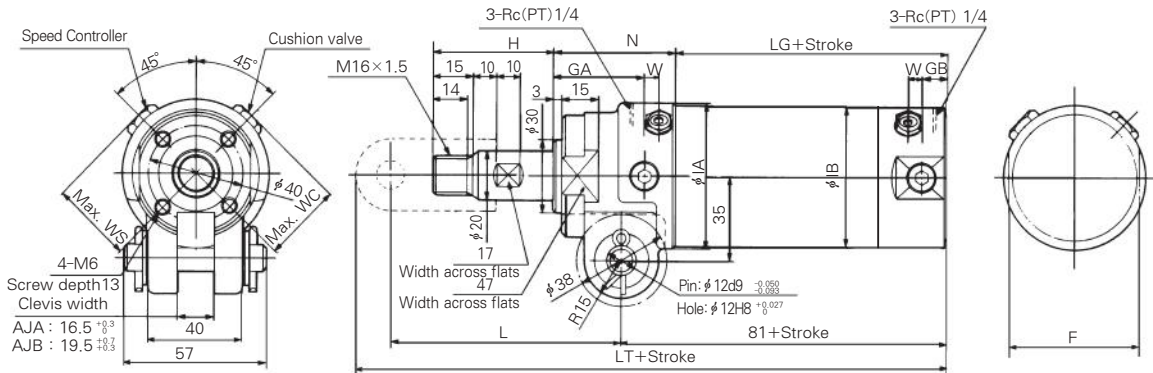
$$0.96 + 0.10 \times 100 / 250.28 = 1.64 \text{kgf}$$

# Series AJ

## Dimensions/Series AJ

(Unit:mm)

AJ○50, AJ○63



(Unit:mm)

Bore Size(mm)	F	GA	GB	H	φ1A	φ1B	L	N	LG	W	WC	WS	LT
φ 50	55	32	10	50	60	58	97	47	58	7	38	39	193
φ 63	69	34	12	50	74	72	97	47	58	5.5	44	45	193

## N

(Unit:mm)

Sign	H					L					LT					
	Stroke	50	75	100	125	150	50	75	100	125	150	50	75	100	125	150
Bore Size(mm)	φ 50	52	62	70	83	83	97	107	115	128	128	194	204	212	225	225
	φ 63	52	62	70	83	83	97	107	115	128	128	194	204	212	225	225

ACP

APM

AS

AX

AM2

AM

AL

ALX

AQ

ADQ

AQ2

ADQ2

**AJ**

AJM

ABK

ACK1

NSK

AG

NGQ

AGX

GX

NP

ADR

AMR

NDM

ARD

NST

AST

ASTH

NLCD

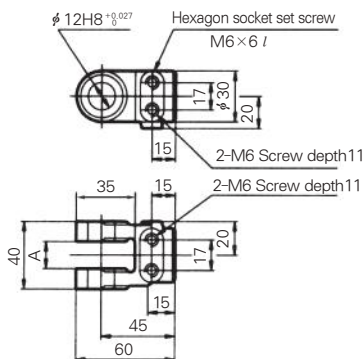
NLCS

# Series AJ

## Accessories

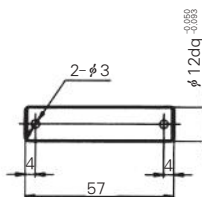
(Unit:mm)

### Double knuckle joint



Material:Cast iron

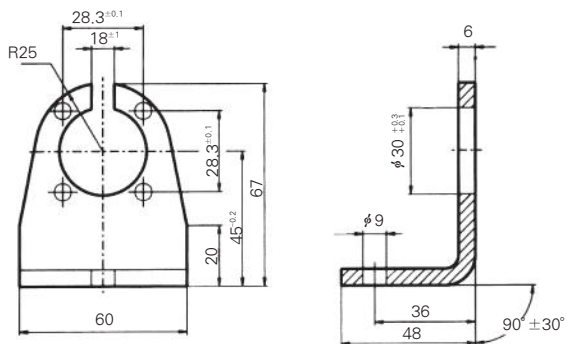
### Pin : TC1K040-23-54806



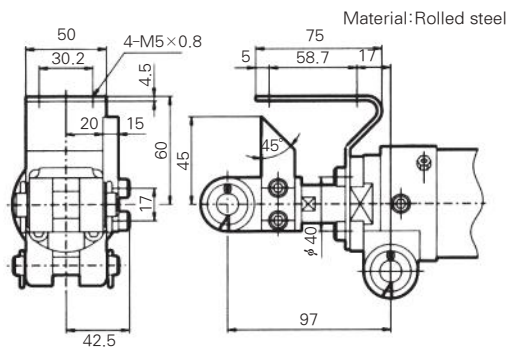
Material:Carbon steel

Part No.	A	Applicable clamp cylinder
TCKA40-18-206A	16.5 <sup>+0.2</sup> <sub>0</sub>	Series AJA
TCKB40-18-207A	19.5 <sup>+0.2</sup> <sub>0</sub>	Series AJB

## Foot Dimensions



## Limit Switch Mount : Cam Mount



Material:Rolled steel

**Note 1)** The limit switch mount and the cam fitting are possible to change to optional positions by removing the hexagon socket head cap bolts.

**Note 2)** The cam fitting can be used when the mounting hole dimension is 97mm.

# Series **AJM**

## Clamp Cylinder / With intense-magnetism resistant auto switch

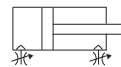
Bore Size(mm) : Ø50, Ø63



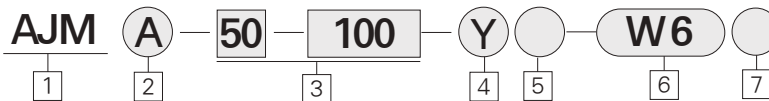
PAT

- TWO TYPES OF CLEVIS WIDTH ARE AVAILABLE(16.5mm, 19.5mm EXCEPT φ32)
- GAITER IS UNNECESSARY BECAUSE A HEAVY DUTY COIL SCRAPER IS PROVIDED AS A COUNTER MEASURE AGAINST SPATTER, ROD BOOT IS UNNECESSARY
- BUILT-IN MAGNET

Symbol



### How to Order



- 1 Clamp Cylinder**  
With intense - magnetism resistant auto switch
- 2 Clevis Width**  
A : 16.5mm(φ50, φ63)  
B : 19.5mm(φ50, φ63)
- 3 Bore Size / Stroke(mm)**  
50 : φ50-50, 75, 100, 125, 150  
63 : φ63-50, 75, 100, 125, 150
- 4 Accessories**  
Blank : None  
Y : Double knuckle joint
- 5 Mount**  
B : Limit switch mount  
D : Cam mount

- N : Rod end is different in length  
19 : Foot mount
- 6 Auto Switch**  
W6 : 24VDC, OFF lighting  
W7 : 24VDC, 100VAC, ON lighting  
※ Refer to auto switch specification
  - 7 Lead Wire Length**  
L : 3m  
Z : 5m

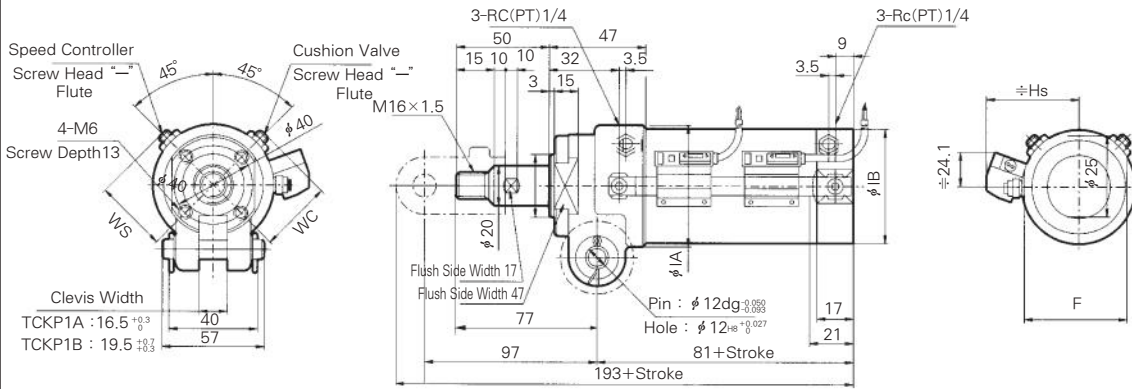
- ACP
- APM
- AS
- AX
- AM2
- AM
- AL
- ALX
- AQ
- ADQ
- AQ2
- ADQ2
- AJ**
- AJM**
- ABK
- ACK1
- NSK
- AG
- NGQ
- AGX
- GX
- NP
- ADR
- AMR
- NDM
- ARD
- NST
- AST
- ASTH
- NLCD
- NLCS

# Series AJM

## Dimensions/Series AJM

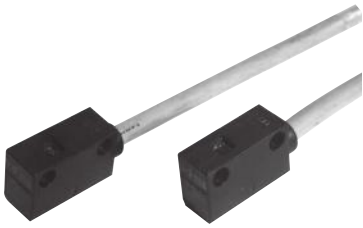
(Unit: mm)

AJM $\phi$ 50, AJM $\phi$ 63



Bore	F	$\phi IA$	$\phi IB$	WC	WS	Hs
$\phi 50$	55	60	58	38	39	49
$\phi 63$	69	74	72	44	45	54.5

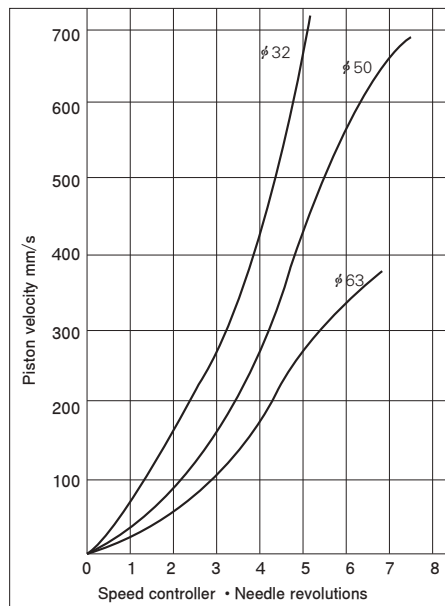
## Series AJM



Auto Switch Specifications			
Switch model NO.	W6(L), (Z)	W7(L), (Z)	
Switch type	Reed switch		
Operating voltage	AC100V	DC24V	AC100V
Operating Current circuit	20mA	5~40mA	5~20mA
Operating time	1.2mS		
Internal drop voltage	Nil	2.4V	
Leakge current Polarity	Max. 1.8mA	0	
Impact resistance	Operating	Present	
Pilot lamp	30G		
Type of lead wire	Oilproof, fire-resistant vinyl capttype cord : 0.75mm <sup>2</sup> × 2		
Lead wire length	0.5m, (3m), (5m)		
Ambient and fluid temperature	40° F ~ 140° F		
Insulation resistance	50MΩ max. at DC 500V		
Protective construction	IEC : IP67 JIS CO920 (Watertight)		
Application	Sequence controller relay		

- ACP
- APM
- AS
- AX
- AM2
- AM
- AL
- ALX
- AQ
- ADQ
- AQ2
- ADQ2
- AJ**
- AJM**
- ABK
- ACK1
- NSK
- AG
- NGQ
- AGX
- GX
- NP
- ADR
- AMR
- NDM
- ARD
- NST
- AST
- ASTH
- NLCD
- NLCS

### Speed Controller Needle Revolutions And Corresponding Cylinder Speed



Conditions : OUT side supply pressure 5kgf/cm<sup>2</sup>, No-load